

anomaly. The second advance is the total repair of the defect by the method of Mustard. The operation consists of the construction of an infracardiac baffle employing a piece of pericardium to re-route blood flow. The third advance has been miniaturization of cardiopulmonary bypass apparatus which permits the technical application of the Mustard procedure.

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### Use of Aortic Homograft to Replace The Aortic or Mitral Valve

While mechanical ball valve prosthetic devices have gained wide acceptance as replacements for diseased aortic, mitral and tricuspid cardiac valves, early and late embolization continues to be a significant complication of valve replacement. This is in spite of routine anticoagulation with five years or longer follow-up now being available for human aortic homografts employed as a replacement for the aortic valve. Rejection or valve cusp fatigue with insufficiency have been minor problems while embolization has been virtually eliminated even though anticoagulants have not been employed. The homograft valve is obtained fresh from cadaver and either used immediately or preserved for later use. The valve is sewn to a simple metal frame before insertion into the recipient. The technique probably would be more widely used if problems of homograft availability and harvesting could be solved.

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### Saphenous Vein Bypass for Coronary Artery Occlusive Disease

Direct endarterectomy of coronary artery atherosclerotic disease has gained only limited acceptance because of the diffuse nature of the disease process. Based on wide experience with saphenous vein bypassing of long blocks of leg arteries, a similar technique has been applied to the coronary arteries. The great saphenous vein is removed from the leg and placed in a reversed position from the ascending aorta to patent areas of the distal left, right or circumflex coronary arteries. Selection of suitable candidates for such operations depends upon good preoperative selective coronary arteriography. Early results of an increasing number of such bypass procedures indicate good patency and clinical relief of symptoms. This technique promises to supersede the currently popular Vineberg internal mammary revascularization procedure.

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Johnson WD, Lepley D Jr: An aggressive surgical approach to coronary disease. *J Thorac Cardiovasc Surg* 59:128, 1970

### Resection of Dyskinetic Ventricular Muscle or Ventricular Aneurysms

The most common occlusion of the coronary arterial tree occurs at the orifice of the left anterior descending coronary artery. If the patient survives, the anterior surface and apex of the left ventricle is often replaced by scar tissue or a ventricular aneurysm. Either entity commonly causes left ventricular failure, angina or cardiac arrhythmia. Resection of the scar or aneurysm in properly selected patients may provide dramatic improvement due to more normal left ventricular contraction. Selection of candidates for such operations depends on heart catheterization and left ventricular cineangiocardiograms. Aneurysms or scar tissue of the posterior surface of the left ven-